

REMARKS

Claims 1-16 were pending in the above-referenced application. By this response, Applicant amends claims 1, 4, 5, 8, 9, 14 and 15 and adds new claim 17.

In the Office Action, the Examiner:
objected to the Abstract;
rejected claims 8-13 under 35 USC § 112, second paragraph;
rejected claims 1-3 under 35 USC § 102 as being anticipated by U.S. Patent No. 2,834,443 to (Olchawa);
rejected claim 16 under 35 USC § 103 as being unpatentable over Olchawa;
rejected claims 4, 5, 14 and 15 under 35 USC § 103 as being unpatentable over Olchawa in view of either U.S. Patent No. 6,769,527 to Paris or U.S. Patent No. 3,667,578 to Johnson;
rejected claims 4-11, 14 and 15 under 35 USC § 103 as being unpatentable over Olchawa in view of U.S. Patent No. 4,176,733 to Twickler; and
indicated that claims 12 and 13 contain allowable subject matter.

Applicant acknowledges the Examiner's indication of allowable subject matter of claims 12 and 13. New claim 17, which incorporates the recitations of claims 12 and 13, the base claim and all intervening claims, has been added.

The Examiner objected to the Abstract because it included legal phraseology. Applicants have amended the Abstract to remove the term "means," and to correct certain typographical errors.

The Examiner rejected claims 8-13 under 35 USC § 112, second paragraph for failing to provide antecedent basis for the recitation of "the release cam divots of the input shaft." Applicants thank the Examiner for noting this inconsistency and have amended claim 8 accordingly.

The Examiner rejected claims 1-3 under 35 USC § 102 as being anticipated by U.S. Patent No. 2,834,443 to (Olchawa); rejected claim 16 under 35 USC § 103 as being unpatentable over Olchawa; rejected claims 4, 5, 14 and 15 under 35 USC § 103 as being unpatentable over Olchawa in view of either U.S. Patent No. 6,769,527 to Paris or U.S. Patent No. 3,667,578 to Johnson; and rejected claims 4-11, 14 and 15 under 35 USC § 103 as being unpatentable over Olchawa in view of U.S. Patent No. 4,176,733 to Twickler.

Amended claim 1 recites a one-way, bi-directional clutch having, among other things, a brake assembly having a brake assembly release cam means and a brake assembly locking cam means and a biasing member, wherein the biasing member biases the brake assembly release cam means from the brake assembly locking cam means.

Olchawa, which forms the basis for the anticipation rejection of claims 1-3 and is the primary reference underlying the obviousness rejections of claim 4-11 and 14-16, discloses an irreversible drive having an intermediate jaw clutch element 15 located between cam surface 140 of input drive pinion 14 and cam surface 160 of driving jaw clutch element 16. Intermediate jaw clutch element 15 is affixed to brake assembly 37. Intermediate jaw clutch element 15 includes cam surface 152 that cooperates with cam surface 160 of element 16 and cam surface 151 that cooperates with cam surface 140 of element 14.

Olchawa fails to disclose that the intermediate jaw clutch element 15/ brake assembly 36 includes a biasing member that biases release cam means from locking cam means. Assuming that Olchawa's cam surface 152 is a release cam surface and that cam surface 151 is a locking cam surface, it is readily apparent that there is no biasing member between these two cam surfaces. Cam surface 152 is on one end of solid element 15 and cam surface 151 is on the other end of solid element 15.

The biasing member of the present invention is important because, unlike Olchawa, it allows the brake to disengage without requiring any rotation of the output

shaft. Olchawa requires that the locking cams (i.e. cam surfaces 151/140) be driven up the ramps when trying to transmit loads from the input shaft to the output shaft. This unlock “inefficiency” is a major problem in high torque situations. Indeed, another cited reference, Paris, proposes to overcome this unlock efficiency by including a hand crank mechanism to drive the load and obtain a mechanical advantage on the unlock drive end of the clutch. The biasing member of the present invention allows rotation of the unlock side of the clutch without forcing rotation of the locking side of the clutch.

For a 35 USC § 102 rejection to be valid, each and every element must be disclosed by the cited reference. Applicant submits that Olchawa fails to disclose each and every element of claim 1 either expressly or inherently, and that therefore, Olchawa fails to anticipate claim 1. Claims 2-16 depend, directly or indirectly from claim 1 and contain additional recitations thereto. Thus, for at least the reasons discussed above, Olchawa fails to anticipate these claims.

To establish a prima facie case of obviousness under 35 USC § 103, the references either individually or in combination must teach or suggest all the claim limitations. As discussed above, Olchawa fails to teach or suggest a biasing member that biases the brake assembly release cam means from the brake assembly locking cam means, as recited in claim 1. Paris, Johnson and Twickler also fail to teach or suggest such a biasing member. Therefore, Applicant submits that claim 1 is not rendered unpatentable in view of Olchawa, either alone or in combination with Paris, Johnson and/or Twickler. Claims 2-16 depend, directly or indirectly from claim 1 and contain additional recitations thereto. Thus, for at least the reasons discussed above, Olchawa, either alone or in combination with Paris, Johnson and/or Twickler, fails to render these claims unpatentable.

As Applicant has addressed each and every objection and rejection raised in the Office Action, it is respectfully requested that the Examiner reconsider the rejections and pass claims 1-17 to issue.

Application No. 10/796,432
Response dated May 25, 2005
Reply to Office Action of March 8, 2005

Applicant believes no charges are involved with this Response; however, if Applicant is in error, please charge Deposit Account No. 13-0235 maintained by Applicant's attorneys.

Favorable consideration is respectfully requested.

Respectfully submitted,

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